

tion Annual Report, 1908, p. 36), and Swezey (Proc. Hawaiian Ent. Soc., vol. 5, p. 37, 1922).

The lesser chicken louse, *Goniocotes hologaster* Nitzsch, taken on both chickens and turkeys in Honolulu markets during November and December, 1926.

The large chicken louse, *Goniocotes gigas* Tasch., was taken on chickens at Waipio, December 14, 1926.

The slender louse of the turkey, *Lipeurus gallipavonis* Geoffroy (= *L. polytrapezius* Nitzsch *), was taken on turkeys in Honolulu market, December 16, 1926.

The large *Lipeurus* of the hen, *Lipeurus heterographus* Nitzsch, was collected on chickens in Honolulu, November 23, 1926.

The variable hen louse, *Lipeurus caponis* (Linn.) (= *L. variabilis* Nitzsch), was taken on chickens in Honolulu, Dec. 16, 1926.

All of these species are illustrated by Professor Glenn W. Herick, in his work on "Some external parasites of poultry," Cornell Agric. Exper. Station, Bull. 359, 1915.

The synonymy marked with a (*) is from Essig, Insects of Western North America, pages 126-138, 1926.

Insects Collected in the Pineapple Growing Section on the Island of Lanai, August, 1927

BY J. F. ILLINGWORTH.

(Presented at the meeting of November 4, 1927)

During three days in the vicinity of Lanai City I made as complete a collection of the insects as possible. I wish to present them here for record.

Class CRUSTACEA.

Family Oniscidae.

Porcellio laevis Latr. (sow bug or damp bug).

Armadillo hawaiiensis Dana (Spherillo) (pill bug).

Class ARACHNIDA.

Family Theridiidae.

Latrodectes mactans (hour-glass spider).

Class CHILOPODA (centipedes).

Family Geophilidae.

Mecistoccephalus maxillaris (Gervais).

CLASS SYMPHYLA.

Family Scolopendrellidae.

Scutigera immaculata (Newport).

Class HEXAPODA (insects).

Family Labiduridae.

Labidura riparia (Pallas) and *Euborellia annulipes* (Lucas).

Family Blattidae (cockroaches). I have never seen as many cockroaches anywhere else in Hawaii. Eight species are common in the pineapple area. Most of these congregate in the fields, especially under mulching paper. They, apparently, have multiplied without limit in the old cactus beds. I was interested to see the great flocks of Minah following the tractors in cactus destruction. The birds kept as close as possible to the big chain, which turned over the stumps, and pounced upon the hordes of cockroaches thus uncovered. The species collected are:

Allacta similis (Sauss.).

Blattella germanica (Linn.) (German roach).

Cutilia soror (Brunn.).

Periplaneta americana (Linn.) (American roach).

Periplaneta australasiae (Fab.) (Australian roach).

Leucophaea maderae (Fab.) Madeira roach.

Pycnoscelus surinamensis (Linn.) (Burrowing roach).

Diploptera dytiscoides (Serv.) (Cypress roach).

Family Gryllidae.

Gryllodes sigillatus (Walk.).

Gryllus oceanicus LeG.

Family Libellulidae (dragon-flies).

Pantala flavescens Fab.

Family Pediculidae.

Haematopinus suis (Linn.) (hog louse).

Family Reduviidae.

Zelus renardii Kolenati (assassin bug).

Nysius delectus White.

Family Asiracidae.

Peregrinus maidis (Ashm.)

Perkinsiella saccharicida Kirk.

Family Coccidae.

Pseudococcus brevipes (Cockerell) (pineapple mealy bug).

Diaspis bromeliae (Kerner) (pineapple scale).

Family Hydrophilidae.

Dactylosternum abdominale (Fab.)

Family Elateridae (click beetles).

Monocrepidius exsul Sharp.

Family Nitidulidae.

Carpophilus humeralis (Fab.) (pineapple beetle).

Carpophilus maculatus Murray.

- Family Colydiidae.
Colobicus parilis Pasc.
- Family Cucujidae.
Cryptamorphia desjardinsi (Guer.)
- Family Coccinellidae.
Rhizobius ventralis (Erich.) (Preys on mealy bugs).
Coelophora inequalis (Fab.) (Feeds on plant lice).
- Family Scarabaeidae.
Adoretus sinicus Burmeister (rose beetle).
Pleurophorus parvulus Chev.
Aphodius lividus Oliver.
- Family Tenebrionidae (ground beetles).
Gonocephalum striatum Boisduval.
Epitragus diremptus Karsch.
Alphitobius lateralis (Boheman).
Blapstinus dilatatus Leconte.
- Family Anthribidae.
Araecerus fasciculatus (DeG.)
- Family Curculionidae.
Pantomorus godmani (Crotch) (Olinda bug).
- Family Lycaenidae.
Lycaena boetica (Linn.).
- Family Pieridae.
Pontia rapae (Linn.) (cabbage butterfly).
- Family Pyraustidae.
Hymenia recurvalis (Fab.) (beet web worm).
- Family Sphingidae.
Celerio lineata (Fab.) (white-lined sphinx).
- Family Caradrinidae.
Cirphis unipuncta Haw. (cutworm).
- Family Tineidae.
Pyroderces rileyi (Walsingham) (budmoth).
Ereunetis flavistriata Walsingham.
Petrochroa dimorpha Busck.
- Family Chironomidae.
Apelma brevis Johannsen.
- Family Stratiomyidae.
Neoexaireta spinigera (Wied.) (soldier fly).
- Family Dolichopodidae.
Psilopus patellifer Thomson (long-legged flies).
- Family Syrphidae.
Volucella obesa (Fab.)
Eristalis punctulatus Macq.
- Family Muscidae.
Musca vicina Macq. (oriental house-fly).
Stomoxys calcitrans (Linn.) (stable fly).
Haematobia irritans (Linn.) (horn fly).

Family Sarcophagidae (flesh flies).

- Sarcophaga barbata* Thomson.
- Sarcophaga fuscicauda* Böttcher.
- Sarcophaga dux* Thomson.
- Sarcophaga pallinervis* Thomson.

Family Tachinidae (parasitic flies).

- Archytas cirphis* Curran.
- Chaetogaedia monticola* (Bigot).

Family Calliphoridae (blow flies).

- Lucilia sericata* Meign. (British sheep maggot fly).
- Chrysomya megacephala* (Fab.) (oriental sheep maggot fly).
- Chrysomya albiceps* Wied. (Australian sheep maggot fly).

Family Anthomyidae.

- Atherigona excisa* Wied.
- Hylemyia cilicrura* Rondani.
- Ophyra nigra* Wied.
- Fannia pusio* Wied.

Family Ortalidae.

- Euxesta annonae* (Fab.)
- Notogramma stigma* (Fab.)

Family Drosophilidae.

- Drosophila repleta* Woll.

Family Trypetidae.

- Dacus cucurbitae* Coquillett. (melon fly).

Family Agromyzidae.

- Milichiela lacteipennis* (Loew)

Family Borboridae.

- Limosina venalicia* (Osten-Sacken).

Family Chalcididae.

- Chalcis obscurata* Walk.
- Stomatoceras pertorvum* Girault.

Family Braconidae.

- Chelonus blackburni* Cameron.

Family Ichneumonidae.

- Cremastus hymeniae* Vier.

Family Evaniidae.

- Evania sericea* Cameron.

Family Formicidae. (ants).

- Pheidole megacephala* (Fab.) (Pheidole ant.)
- Cardiocondyla nuda* Mayr. var. *minutior* Forel.
- Tapinoma melanocephalum* (Fab.)
- Prenolepis* sp.

Family Psammocharidae.

- Psammochares luctuosus* (Cresson).

Family Scoliidae.

- Scolia manilae* Ashmead (Adoretus parasite).

Family Vespidae.

Polistes macaensis (Fab.)*Polistes aurifer* Sauss.

Family Eumenidae.

Pachodynerus simplicicornis (Sauss.)*Odynerus rubritinctus* Sm. (Det. Swezey).*Odynerus insulicola* Blkb (Det. Swezey).*Odynerus nautarum* Sauss. (Det. Swezey).

Family Crabronidae.

Xenocrabro mandibularis (Sm.).

Family Prosopidae.

Nesoprosopis laeta Perk. (wild bee.)

Family Andrenidae.

Xylocopa varipuncta Patton (carpenter bee).

• Family Apidae.

Apis mellifica Linn. (honey bee).